

Comparisons of Job Characteristics

Focus Occupation: Agricultural and Food Science Technicians (19-4011)

Associated Occupation: Environmental Engineering Technicians (17-3025)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 32

Focus Occupation: Agricultural and Food Science Technicians (19-4011)
Associated Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	15.8	4.3	<<	Extensive education and/or training may be required
Design	5.2	11.1	3.2	<<	Extensive education and/or training may be required
Building and Construction	4.0	10.6	2.6	<<	Extensive education and/or training may be required
Physics	4.3	10.2	4.0	<<	Extensive education and/or training may be required
Law and Government	5.9	9.5	4.6	<<	Extensive education and/or training may be required
Biology	3.7	6.8	10.1	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Agricultural and Food Science Technicians (19-4011)
Associated Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Reading Comprehension	10.7	16.3	11.5	<<	Extensive development of skills in this area may be required
Critical Thinking	10.8	14.5	10.6	<<	Extensive development of skills in this area may be required
Active Learning	8.7	12.6	8.7	<<	Extensive development of skills in this area may be required

Mathematics	6.2	11.3	7.9	<<	Extensive development of skills in this area may be required
Quality Control Analysis	5.9	9.7	6.4	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	6.8	3.7	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 94			
Focus Occupation: Agricultural and Food Science Technicians (19-4011) Associated Occupation: Environmental Engineering Technicians (17-3025)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	16.6	11.2	<<	Extensive improvement in abilities may be required
Problem Sensitivity	11.1	15.9	10.7	<<	Extensive improvement in abilities may be required
Near Vision	11.1	14.7	10.7	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	14.5	10.3	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	13.6	10.0	<<	Extensive improvement in abilities may be required
Information Ordering	9.9	13.3	9.7	<<	Extensive improvement in abilities may be required
Category Flexibility	9.0	11.8	9.5	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	10.6	8.5	<	Some improvement in abilities may be required
Number Facility	6.3	10.6	7.4	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 73
Focus Occupation: Agricultural and Food Science Technicians (19-4011) Associated Occupation: Environmental Engineering Technicians (17-3025)		
Work Activities	Exclusivity of Activity	
Analyze scientific research data or investigative findings	27	
Communicate technical information	4	
Follow safe waste disposal procedures	50	
Maintain records, reports, or files	5	
Record test results, test procedures, or inspection data	48	

Use chemical testing or analysis procedures	54
Use government regulations	44
Use hazardous materials information	35
Use knowledge of metric system	39
Use laboratory equipment	60
Use precision measuring tools or equipment	17
Use scientific research methodology	21

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 77

Focus Occupation: Agricultural and Food Science Technicians (19-4011)
Associated Occupation: Environmental Engineering Technicians (17-3025)

Tools and Technologies	Exclusivity
Autoclave and sterilizer equipment and accessories	12
Business function specific software	1
Chemical evaluation instruments and supplies	10
Clinical and diagnostic analyzers and accessories and supplies	18
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Fermentation equipment	31
Fluid mechanics equipment	11
Gas analyzers and monitors	10
General laboratory glassware and plasticware and supplies	13
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory baths	24
Laboratory blending and dispersing and homogenizing equipment and supplies	27
Laboratory centrifuges and accessories	13
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Laboratory electron and solid state physics equipment	29
Laboratory enclosures and accessories	17
Laboratory environmental conditioning equipment	24
Laboratory heating and drying equipment	13
Laboratory incubating equipment	20
Laboratory microscope slides and supplies	20
Laboratory mixing and stirring and shaking equipment and supplies	19
Laboratory ovens and accessories	15
Laboratory water purification equipment and supplies	29

Light and wave generating and measuring equipment	4
Liquid and solid and elemental analyzers	19
Meteorological instruments	16
Network applications software	1
Pipettes and liquid handling equipment and supplies	16
Safety apparel	4
Sampling equipment	12
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Test Tubes	26
Viewing and observing instruments and accessories	4
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.